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## Medicaid: Use and cost of medical care by institutionalized recipients, New York and Michigan, 1982

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### Overview

This *Note* presents data on the use and cost of medical care of aged and disabled institutionalized Medicaid recipients. Data presented are for two major types of medical care services used by institutionalized recipients in New York during fiscal year 1982 and Michigan during calendar year 1982.

### Source of data, methods, and limitations

The source of data for this report is the Health Care Financing Administration's data base called tape-to-tape. This is a 100-percent data base containing enrollment and claims from State Medicaid Management Information Systems in California, Georgia, Michigan, New York, and Tennessee. The data provide, for the first time, uniform, comprehensive counts of Medicaid enrollees, recipients, and expenditures.

This report uses these three items to measure use and expenditure rates. The first measures use of Medicaid services; the other two measure average expenditures. The measure of use is: recipients per enrollee (i.e., recipients/enrollee). The two measures of expenditures are: expenditures per recipient (expenditures/recipient) and expenditures per enrollee (expenditures/enrollee). The relationship of the three measures is:

$$\frac{\text{Recipients}}{\text{Enrollee}} \times \frac{\text{Expenditures}}{\text{Recipient}} = \frac{\text{Expenditures}}{\text{Enrollee}}$$

The relationship shows that expenditures per enrollee measures the combined effect of the other two variables. Thus, expenditure per enrollee represents the average Medicaid expenditure for the population-at-risk. Recipients per enrollee represents the proportion of the population-at-risk that used services. Expenditure per recipient represents the average expenditure per user of services.

To calculate rates this *Note* uses enrollment and recipient by person year equivalents. Person years are a more accurate measure of use and expenditure rates than a simple count of persons ever enrolled during the year. Person years of enrollment are calculated by adding, for each enrollee, the cumulative months of Medicaid enrollment for 1982 and then dividing by 12. Recipients are Medicaid enrollees who used at least one covered service during 1982. Person years of enrollment for recipients are calculated by adding, for each recipient, the cumulative months of Medicaid enrollment for 1982 and then dividing by 12. For all noninstitutionalized eligibility groups the number of recipients is less than the number of enrollees because many enrollees do not use a covered Medicaid service in a year. However, institutionalized Medicaid enrollees, because they reside in skilled nursing facility (SNF's) or intermediate care facility (ICF's), are automatically recipients.

Analysis is limited to aged and disabled enrollees because they made up, in New York, for example, 76 and 22 percent respectively, of all institutionalized enrollees. Institutionalized data includes both those Medicaid enrollees residing in a long-term care institution (SNF or ICF) for one or more days but less than a full year and those residing for a full year (or their full enrollment period). Data for New York are incomplete because the New York Medicaid Management Information System was not fully implemented in all counties in fiscal year 1982. Thus, some counties were reported for only part of the year. New York data also do not include mentally retarded recipients in ICF's that are publically-owned. The majority of ICF's for the mentally retarded are publically-owned.

Medicaid is a federally supported and State administered assistance program that provides medical care for certain low income individuals and families. The program is designed to provide medical assistance to

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those groups or categories of people who are eligible to receive cash payments under the Social Security Act (Title IV-A, Aid to Families with Dependent Children; or Title XVI, the Supplemental Security Income program for the aged, blind, and disabled). In many cases, receipt of a welfare payment under one of these programs means automatic eligibility for Medicaid. In addition, States may provide Medicaid to the medically needy, people who fit into one of the categories of people covered by the cash assistance programs (aged, blind, or disabled persons or members of families with dependent children when one parent is dead, absent, incapacitated, or at State discretion, unemployed), and who are not recipients of cash assistance but whose income falls below certain levels after medical expenses are considered.

Title XIX of the Social Security Act requires that every State Medicaid program offer certain basic services: inpatient and outpatient hospital services, laboratory and X-ray services, SNF services for individuals 21 years of age or over, home health care services for individuals eligible for SNF services, rural health clinic services, and early and periodic screening, diagnosis, and treatment services for individuals under 21 years of age. States may also elect to provide a number of other services, including drugs, eyeglasses, private duty nursing, ICF services, inpatient psychiatric care for the aged and persons under 21 years of age, physical therapy, and dental care.

## Findings

### New York

#### Enrollees and expenditures

The number of Medicaid enrollees and amount of expenditures, respectively by type of eligibility and institutional status are given in Tables 1 and 2. The number and expenditures for the institutionalized aged and disabled by major services used are included in Table 3. User and expenditure rates for the institutionalized are shown in Table 4. Data for New York are provided in Tables 1-4 and similar data for Michigan are provided in Tables 5-8.

In New York during fiscal year 1982, only 5.2 percent of Medicaid enrollees or 122,400 of 2,344,500 persons ever enrolled lived in institutions (Table 1). As derived from Table 1, the total number of aged enrollees was only 9.1 percent more than their disabled counterparts, much higher proportions of the aged (27.4 percent) were institutionalized than the disabled (8.5 percent). Though relatively few in number, the institutionalized are of great interest because of the relatively large expenditures they incur. Specifically, the aged and disabled in institutions accounted for 53.1 percent of reported Medicaid expenditures for New York, \$2,088 million of \$3,931 million (Table 2). The other major eligibility groups, Aid to Families with Dependent Children (AFDC) children and adults, accounted for 44.8 percent and 21.4 percent of all enrollees (Table 1) but only 11.1 percent

and 10.3 percent of all Medicaid expenditures, respectively. This was, in part, because of the low rate of institutionalized among AFDC enrollees (Table 2).

#### User and expenditure rates

The two most important services used by the institutionalized in terms of expenditures were provided in long-term care facilities, i.e., skilled nursing and intermediate care, (\$1,855 million) and inpatient hospitals, excluding physicians' services, (\$125 million) as shown in Table 3. Long-term care accounted for 89 percent of expenditures for institutionalized persons and hospital care, 6 percent. Among institutionalized recipients, 21 percent were inpatients in hospitals during fiscal year 1982.

The institutionalized aged had much higher user rates (recipients per 1,000 enrollees in person years) than the institutionalized disabled (Table 4). Overall, 278 aged recipients per 1,000 total enrollees used Medicaid services during the year, the comparable figure for the disabled was only 74 per 1,000 total enrollees. These differences held for both long-term and inpatient hospital care.

The average expenditure per institutionalized recipient for all services received during fiscal year 1982 was \$22,868. The comparable figure for long-term institutionalized services was \$20,164 and inpatient hospital services averaged \$6,651. Though the user rate of the institutionalized disabled was far less than that of the aged in institutions, expenditures per recipient were much higher. For all medical services average expenditures per disabled recipient were \$28,883 or 35 percent, higher than that of the aged. The higher Medicaid expenditure per recipient for the disabled compared with the aged was in part, because of much higher proportions of aged than disabled persons also covered by Medicaid. This dual coverage greatly lowers both Medicaid expenditures per recipient and per enrollee especially for inpatient hospital services, and somewhat for SNF services. For those with dual coverage, Medicare is the first payer of Medicare covered inpatient hospital and SNF services. In addition, about one-third of the disabled were persons in ICF's for the mentally retarded. These persons generally are high-cost users of care because they require assistance to perform daily living activities and need assistance 24 hours a day. Among the Medicaid disabled, mentally retarded recipients in ICF's in New York (data excludes those in publicly-owned ICF's) had an average expenditure per recipient of \$28,949 in fiscal year 1982.

As previously noted, expenditures per enrollee measure the combined effect of the user rate and the average expenditure per recipient. Expenditures per enrollee for long-term care for the aged were far more (\$5,499) than that of the disabled (\$1,663). Though long-term care expenditures per recipient were higher for the disabled (\$26,457) than the aged (\$18,887) (in part, because of the greater proportion of Medicare coverage of the aged) the higher user rate of the aged more than offset lower expenditures per recipient.



Similarly, expenditures per enrollee for inpatient hospital services for the aged were also higher than that of the disabled because of the higher user rate of the aged more than offset the higher expenditures per recipient of the disabled.

## Michigan

### Enrollees and expenditures

During calendar year 1982 there were 4.6 percent of Michigan Medicaid enrollees in institutions, or 55,000 of 1,196,000 person enrolled (Table 5). Ninety-three percent of these institutionalized were aged (67.5 percent) and disabled (25.5 percent). Though disabled enrollees out-numbered the aged (111,110 and 86,600), respectively, a much higher proportion of the aged (42.9 percent) were in institutions than the disabled (12.6 percent).

The aged and disabled in institutions accounted for 45.7 percent of total Medicaid expenditures (Table 6). The institutionalized disabled were 25.5 percent of all institutionalized but accounted for 43.0 percent of expenditures of the institutionalized. In contrast, the comparable figures for the institutionalized aged were recipients, 67.5 percent and expenditures, 49.6 percent. The other major eligibility groups, AFDC children and adults, accounted for 53.4 percent and 29.1 percent of all enrollees but only 15.6 percent and 22.5 percent, respectively, of all Medicaid expenditures.

### User and expenditures rates

Of total expenditures for the institutionalized, the two major services comprised 92.9 percent, long-term care (89.9 percent), and inpatient hospitals (3.0 percent) as derived from Table 7.

Among the institutionalized, 7,373 of 43,908 (16.8 percent) were inpatients in acute care hospitals. The user rates of the aged far exceeded that of the disabled; long-term care recipients per 1,000 enrollees for the aged were 4.6 times higher than for the disabled and inpatient hospital rates were 2.7 times more.

Expenditures per institutionalized recipient for all services were \$12,447 in calendar year 1982 (Table 8). Average expenditures for institutionalized disabled recipients were 2.1 times that of the aged. For inpatient hospital expenditures, disabled recipients had average expenditures 6.7 times greater than the aged, the comparable difference was 2.6 times higher for long-term care services. Presumably, though the disabled were less likely to be institutionalized, their average expenditures were much higher than their aged counterparts because they require more services. This

is especially true of the mentally retarded in ICF's. They numbered 4,183 in person years of enrollment, and had expenditures of \$154.3 million (data not shown in table) in calendar year 1982, and their expenditures per recipient was \$36,877. However, the much higher average expenditure per recipient of the disabled for inpatient hospital services and for long-term care services are, in part, because a much higher proportion of the Medicaid aged than the disabled are also covered by Medicare. As previously noted, Medicare is the first payer of covered inpatient hospital and SNF services.

Expenditures per enrollee for the aged and disabled combined was \$3,202, long-term care services averaged \$2,879, and inpatient hospital, \$96. Expenditures per enrollee were much higher for the aged (\$4,087) than the disabled (\$2,563). The far higher user rates of the aged offset the higher expenditures per recipient of the disabled for long-term care services but not inpatient hospital services. The higher expenditures per disabled enrollee for inpatient hospital services, were due, in part, to the higher proportion of the aged covered by Medicare.

## Conclusion

Because of data limitations previously noted, differences in the Medicaid programs of New York and Michigan and other factors, this section is restricted to summarizing some similarities about the institutionalized in the two programs. In New York and Michigan though the proportion of aged and disabled institutionalized enrollees to all enrollees was small (5.2 and 4.6 percent, respectively) these institutionalized individuals accounted for 53.1 percent of all Medicaid expenditures in New York and 45.7 percent in Michigan. The other major eligibility group, AFDC children and adults accounted for 66.2 percent of all enrollees in New York but only 21.4 percent of expenditures. The comparable figures for Michigan were AFDC enrollees, 82.5 percent, and expenditures, 38.1 percent. In both States the institutionalized aged had much higher user rates (recipients per 1,000 enrollees) than the institutionalized disabled for both long-term care and inpatient hospital services. These two services accounted for 95 percent of expenditures of institutionalized persons in New York and 93 percent in Michigan.

In both States total expenditures per institutionalized recipient were higher for the disabled than the aged. This was due, in part, to a much lower proportion of institutionalized disabled persons than aged persons covered by both Medicaid and Medicare.

Table 1

**Number of persons ever enrolled in Medicaid and percent distribution, by institutional status and eligibility group: New York, fiscal year 1982<sup>1</sup>**

Eligibility group	Total	Institutionalized <sup>2</sup>	Noninstitutionalized
Number of persons			
Total	2,344,470	122,378	2,222,092
Aged	341,277	93,456	247,821
Blind	4,349	592	3,757
Disabled	312,799	26,495	286,304
AFDC child	1,049,261	646	1,048,615
AFDC adult	501,629	845	500,784
Other child	135,155	344	134,811
Percent distribution			
Total	100.0	100.0	100.0
Aged	14.6	76.4	11.2
Blind	0.2	0.5	0.2
Disabled	13.3	21.7	12.9
AFDC child	44.8	0.5	47.2
AFDC adult	21.4	0.7	22.5
Other child	5.8	0.3	6.1

<sup>1</sup>Data for New York are incomplete because the Medicaid Management Information System was not fully implemented in all counties in fiscal year 1982.

<sup>2</sup>Comprises enrollees residing in a long-term care institution for 1 or more days but less than a full year and those residing for a full year or their full enrollment period.

NOTE: AFDC is Aid to Families With Dependent Children.

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Medicaid tape-to-tape project.

Table 2

**Total expenditures for Medicaid recipients and percent distribution, by institutional status and eligibility group: New York, fiscal year 1982<sup>1</sup>**

Eligibility group	Total	Institutionalized <sup>2</sup>	Noninstitutionalized
Expenditures			
Total	\$3,930,635	\$2,123,168	\$1,807,467
Aged	1,898,345	1,558,012	340,333
Blind	12,991	8,517	4,474
Disabled	1,120,872	529,691	591,181
AFDC child	436,220	11,931	424,289
AFDC adult	406,600	9,210	397,390
Other child	55,606	5,806	49,800
Percent distribution			
Total	100.0	100.0	100.0
Aged	48.3	73.4	18.8
Blind	0.3	0.4	0.2
Disabled	28.5	24.9	32.7
AFDC child	11.1	0.6	23.5
AFDC adult	10.3	0.4	22.0
Other child	1.4	0.3	2.8

<sup>1</sup>Data for New York are incomplete because the Medicaid Management Information System was not fully implemented in all counties in fiscal year 1982.

<sup>2</sup>Comprises enrollees residing in a long-term care institution for 1 or more days but less than a full year and those residing for a full year or their full enrollment period.

NOTE: AFDC is Aid to Families With Dependent Children.

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Medicaid tape-to-tape project.

Table 3

**Number of and expenditures for aged and disabled institutionalized Medicaid recipients, by selected services: New York, fiscal year 1982<sup>1</sup>**

Eligibility group	All services <sup>2</sup>	Inpatient hospital <sup>3</sup>	Long-term care <sup>4</sup>	All other
Number of recipients <sup>5</sup>				
Total	91,292	18,857	92,016	(6)
Aged	72,953	15,632	76,501	(6)
Disabled	18,339	3,225	15,515	(6)
Expenditures in thousands				
Total	\$2,087,702	\$125,416	\$1,855,367	\$106,919
Aged	1,558,012	85,434	1,444,882	27,696
Disabled	529,690	39,982	410,485	79,223

<sup>1</sup>Data for New York are incomplete because the Medicaid Management Information System was not fully implemented in all counties in fiscal year 1982.

<sup>2</sup>Includes virtually all Medicaid services provided by the State.

<sup>3</sup>Excludes inpatient psychiatric services.

<sup>4</sup>Recipients using both intermediate care and skilled nursing facility services during the year are counted twice.

<sup>5</sup>The sum of recipients using individual services may exceed the count of recipients using all services because recipients using more than 1 service in a month are counted once for each service but total recipients are counted only once.

<sup>6</sup>Data not available.

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Medicaid tape-to-tape project.

Table 4

**Use and cost of aged and disabled institutionalized Medicaid recipients, by selected services: New York, fiscal year 1982<sup>1</sup>**

Eligibility group	All services <sup>2</sup>	Inpatient hospital <sup>3</sup>	Long-term care <sup>4</sup>	All other
Number of recipients per 1,000 enrollees				
Total	179	37	181	(5)
Aged	278	59	291	(5)
Disabled	74	13	63	(5)
Expenditures per recipients				
Total	\$22,868	\$6,651	\$20,164	(5)
Aged	21,356	5,465	18,887	(5)
Disabled	28,883	12,398	26,457	(5)
Expenditures per enrollee				
Total	\$4,097	\$246	\$3,641	\$210
Aged	5,930	325	5,499	105
Disabled	2,146	162	1,663	321

<sup>1</sup>Data for New York are incomplete because the Medicaid Management Information System was not fully implemented in all counties in fiscal year 1982.

<sup>2</sup>Includes virtually all Medicaid services provided by the State.

<sup>3</sup>Excludes inpatient psychiatric services.

<sup>4</sup>Recipients using both intermediate care and skilled nursing facility services during the year are counted twice.

<sup>5</sup>Data not available.

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Medicaid tape-to-tape project.





Table 5

**Number of persons ever enrolled in Medicaid and percent distribution, by institutional status and eligibility group: Michigan, calendar year 1982**

Eligibility group	Total	Institutionalized	Noninstitutionalized
Number of persons <sup>1</sup>			
Total	1,195,992	54,956	1,141,036
Aged	86,557	37,121	49,436
Blind	2,069	108	1,961
Disabled	111,081	14,020	97,061
AFDC child	638,323	1,670	636,653
AFDC adult	348,503	1,771	346,732
Other	9,459	266	9,193
Percent distribution			
Total	100.0	100.0	100.0
Aged	7.2	67.5	4.3
Blind	0.2	0.2	0.2
Disabled	9.3	25.5	8.5
AFDC child	53.4	3.0	55.8
AFDC adult	29.1	3.2	30.4
Other	0.8	0.5	0.8

<sup>1</sup>Comprises enrollees residing in a long-term care institution for 1 or more days but less than a full year and those residing for a full year or their full enrollment period.

NOTE: AFDC is Aid to Families With Dependent Children.

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Medicaid tape-to-tape project.

Table 6

**Total expenditures for Medicaid recipients and percent distribution, by institutional status and eligibility group: Michigan, calendar year 1982**

Eligibility group	Total	Institutionalized	Noninstitutionalized
Expenditures			
Total	\$1,195,451	\$589,680	\$605,771
Aged	315,461	292,682	22,779
Blind	3,656	1,760	1,896
Disabled	411,567	253,825	157,742
AFDC child	186,007	24,935	161,072
AFDC adult	269,055	11,236	257,819
Other	9,705	5,241	4,464
Percent distribution			
Total	100.0	100.0	100.0
Aged	26.4	49.6	3.8
Blind	0.3	0.3	0.3
Disabled	34.4	43.0	26.0
AFDC child	15.6	4.2	26.6
AFDC adult	22.5	1.9	42.6
Other	0.8	0.9	0.7

<sup>1</sup>Comprises enrollees residing in a long-term care institution for 1 or more days but less than a full year and those residing for a full year or their full enrollment period.

NOTE: AFDC is Aid to Families With Dependent Children.

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Medicaid tape-to-tape project.

Table 7

**Number of and expenditures for aged and disabled institutionalized Medicaid recipients, by selected services: Michigan, calendar year 1982**

Eligibility group	All services <sup>1</sup>	Inpatient hospital <sup>2</sup>	Long-term care <sup>3</sup>	All other
Number of recipients <sup>4</sup>				
Total	43,908	7,373	48,332	(5)
Aged	30,913	4,876	37,108	(5)
Disabled	12,995	2,497	11,224	(5)
Expenditures in thousands				
Total	\$546,508	\$16,303	\$491,264	\$38,941
Aged	292,682	3,672	273,522	15,488
Disabled	253,826	12,631	217,742	23,453

<sup>1</sup>Includes virtually all Medicaid services provided by the State.

<sup>2</sup>Excludes inpatient psychiatric services.

<sup>3</sup>Recipients using both intermediate care and skilled nursing facility services during the year are counted twice.

<sup>4</sup>The sum of recipients using individual services may exceed the count of recipients using all services because recipients using more than 1 service in a month are counted once for each service but total recipients are counted only once.

<sup>5</sup>Data not available.

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Medicaid tape-to-tape project.

Table 8

**Use and cost of aged and disabled institutionalized Medicaid recipients, by selected services: Michigan, calendar year 1982**

Eligibility group	All services <sup>1</sup>	Inpatient hospital <sup>2</sup>	Long-term care <sup>3</sup>	All other
Number of recipients per 1,000 enrollees				
Total	257	43	283	(4)
Aged	432	68	518	(4)
Disabled	131	25	113	(4)
Expenditures per recipient				
Total	\$12,447	\$2,211	\$10,164	(4)
Aged	9,468	753	7,371	(4)
Disabled	19,533	5,058	19,400	(4)
Expenditures per enrollee				
Total	\$3,202	\$96	\$2,879	\$228
Aged	4,087	51	3,819	216
Disabled	2,563	128	2,198	237

<sup>1</sup>Includes virtually all Medicaid services provided by the State.

<sup>2</sup>Excludes inpatient psychiatric services.

<sup>3</sup>Recipients using both intermediate care and skilled nursing facility services during the year are counted twice.

<sup>4</sup>Data not available.

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Medicaid tape-to-tape project.



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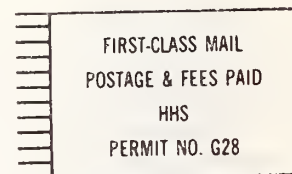
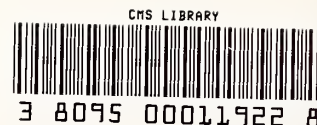
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